

MISSOURI CONSERVATIONIST

June
2006

Volume 67
Issue 6

Serving Nature & You



Vantage Point

Cooperative Conservation

An old saying goes: “Together we can do more than we could ever accomplish alone.” For the last 25 years the Conservation Department and the USDA Natural Resources Conservation Service (NRCS) have made this saying a reality in Missouri.

In 1981, the Conservation Department experimentally assigned several of its biologists to NRCS to help with staff training and to develop wildlife plans for private land. The experiment was so successful that today the Department has 10 biologists assigned directly to NRCS, and 50 more work directly with private landowners out of NRCS offices. These Conservation Department staff members are key to helping NRCS implement provisions of the 2002 Farm Bill that deal specifically with the fish, forest and wildlife resources of Missouri.

We serve as an example to the rest of the country for our cooperative resource accomplishments together, our service to customers and our dynamic partnership. No other state fish and wildlife agency has this kind of relationship with the USDA. Representatives of agencies from other states come to Missouri to see how we do it.

Field staff from both agencies are excited about the new customers that we bring to each other. Our close partnership allows us to use the expertise that each agency brings to the table when servicing landowner requests for assistance. And, our ability to get programs implemented and conservation working on the ground has attracted additional federal dollars to Missouri for conservation.

One of the greatest examples of how our partnership benefits Missouri natural resources and landowners is our cooperative effort in delivering the federal Wetlands Reserve Program. The Conservation Department has five wetland biologists who provide biological expertise to NRCS wetland teams comprised of soil scientists, engineers and technicians. The synergy of these teams has helped Missouri become one of only five states to enroll more than 100,000 acres into the program.

That is a critical effort in Missouri, where more than 90 percent of the state’s original wetlands have been drained and converted to other land uses. The benefits of restoring wetlands are immeasurable when you consider the migrating waterfowl, shorebirds and hundreds of other wetlands species that call these restored acres home. Studies show that these wetlands also improve water quality in our state’s streams and reduce bottom-land flooding on farms along major rivers.

The Department has also helped NRCS prepare for



CLIFF WHITE

From left: Roger Hansen and John Hoskins

and conduct the first Conservation Security Program signups. This voluntary program rewards farmers and other landowners for being good stewards of the land and motivates others to do likewise. While the signups have been limited to select watersheds around the state, the program has good implications for all Missouri wildlife resources.

The Conservation Security Program requires that landowners attain a minimum standard of protection of soil and water resources to enter the program. To attain higher levels of payment, landowners need to improve the wildlife resources on their farms. As a result, farmers from the Bootheel to northwestern Missouri are establishing an estimated 8,000 acres of native-grass field borders and are re-flooding 15,000 acres of rice fields for migrating wetland species. This amount of habitat improvement is unprecedented in Missouri conservation history. It is happening because we have worked together to make wildlife habitat restoration an economically attractive option for farmers.

We truly could not have come this far without working so well together. The real achievements are put on the ground by the conservation-minded citizens of Missouri with the technical assistance of the passionate, hardworking staff of the Conservation Department and the NRCS. Many of Missouri’s great conservation achievements are the result of our long, steadfast partnership.

Cooperative conservation is alive and well in Missouri!

Roger Hansen, state conservationist, USDA Natural Resources Conservation Service

John Hoskins, director, Missouri Department of Conservation



10



16



22



4

- 4 Woodland Wildlife** Management restores the natural habitat that Ozark quail require. **BY RHONDA L. RIMER AND ROBERT N. CHAPMAN**
- 10 Mountain Lions in Missouri** The Mountain Lion Response Team confirms reports and busts myths. **BY DAVE HAMILTON**
- 16 The Celebration Continues** Central Region conservation areas get makeovers in honor of the Lewis & Clark bicentennial. **BY ANN KOENIG**
- 22 Catching Big River Blues** Big game fishing on the Mississippi and Missouri—St. Louis style. **BY DANNY BROWN, PHOTOS BY CLIFF WHITE**

DEPARTMENTS

Reflections 2
News & Almanac 28

COVER

Carl Roberts—by Cliff White



Contact Information

REGIONAL OFFICES

Southeast/Cape Girardeau—573/290-5730
Central/Columbia—573/884-6861
Kansas City—816/655-6250
Northeast/Kirkville—660/785-2420
Southwest/Springfield—417/895-6880
Northwest/St. Joseph—816/271-3100
St. Louis—636/441-4554
Ozark/West Plains—417/256-7161



CENTRAL OFFICE

Phone: 573/751-4115
Address: 2901 W. Truman Blvd
 P.O. Box 180
 Jefferson City 65102-0180

OMBUDSMAN QUESTIONS

Phone: 573/522-4115 ext. 3848
Address: Ombudsman
 P.O. Box 180
 Jefferson City 65102-0180
E-mail: Ken.Drenon@mdc.mo.gov

EDITORIAL COMMENTS

Phone: 573/522-4115 ext. 3245 or 3847
Address: Magazine Editor
 P.O. Box 180
 Jefferson City 65102-0180
E-mail: Magazine@mdc.mo.gov

SUBSCRIPTIONS

Phone: 573/522-4115 ext. 3856 or 3249
Address: Circulation
 P.O. Box 180
 Jefferson City 65102-0180

E-mail subscriptions:

Subscriptions@mdc.mo.gov

Online subscriptions and address changes:

mdc.mo.gov/conmag/subscribe

Cost of subscriptions:

Free to Missouri households
 Out of State \$7 per year
 Out of Country \$10 per year

Address Changes:

Don't miss an issue due to an address change. Go online, call, write or e-mail us to update your information.



Reflections

WHY GO TO WAPPAPELLO?

Thank you for the outstanding article Tom Cwynar wrote regarding Wappapello Lake in the March 2006 issue. The article highlighted Wappapello's fishing opportunities and the partnerships that enhance them, including fish habitat improvements.

Each year, several area anglers approach our office wanting to place brushpiles in their favorite spots on the lake. We try our best to oblige these requests; however, these activities do require a Special Use Permit from our office. These permits are free of charge, and the purpose of these permits is to ensure that materials are placed in areas and depths that will not pose a threat to recreational boaters or other anglers.

We invite *Missouri Conservationist* readers to experience the excellent camping facilities Wappapello Lake offers. Our camping opportunities can accommodate those who enjoy modern facilities, as well as those who want

a "back to nature" primitive camping experience. There's something for everyone at this southeast Missouri gem.

We look forward to serving you!

Gary G. Stilts, operations manager
Wappapello Lake Management Office

DOODLE ON, CHMIELNIAK

Cartoonist Betty Chmielniak Grace has just one-upped the "can-you-hear-me-now" boys with her cell-phoning bird's great reception (having nested on the tower in April's *Conservationist*). Great chuckles; it made my day! P.S.: She might do a cell-phoning turkey driving an SUV. My caption would be, "Look out hunters, turkey armed and dangerous."

Fred Boeneker, Glendale

DOWN BY THE BLUE

Your story of the Blue River Rescue ["Missouri Stream Team reaches 3000," April 2006] brought back fond memories. Growing up in Leeds (Kansas City) in the '30s, we kids spent lots of time

down by the Blue. Old men would fish, and sometimes they would catch carp and snapping turtles so large they could hardly land them. In winter, it was our skating rink. No one had skates, but it was the only frozen pond in town. I now live on a small farm in Bolivar, where my only livestock are deer and turkeys.

Dent Blickham, Bolivar

WE'RE HERE TO HELP

Last night I attended an MDC duck season and zoning workshop that was very well done, and your agents volunteered that we could call them with any questions. Last spring, after reading an article on jug fishing, I called the author, who was very helpful in getting me started in my new hobby.

The point of my letter is to thank you for all your help over the years and to remind other readers that your staff is very accessible and anxious to help the taxpayers of Missouri. Keep up the good work.

Richard J. Bagy, Jr., president
First National Bank, St. Louis

FRIENDS IN CONSERVATION

The April issue of the *Conservationist* magazine had news of the Belle FFA and their bluebird house project. Their efforts are to be commended.

The article also served to remind me of the efforts of the late Charles Schlanker of DeSoto. Charles was named a Master Conservationist by the MDC in 1998. He passed away in December 2005, but he completed 560 bluebird houses before his illness. I have put up the ones remaining in his workshop and still have some to assemble that he had cut out.

Joe Wilson, DeSoto

ARBOR DAY ENTHUSIAST

Congrats to the Shumard oak for becoming this year's Missouri Arbor Day tree.

I recall my fourth-grade year when the Missouri Department of



MY FAVORITE HANGOUT

Kandi Mislevich of Waynesville took this photo of an eastern pipistrelle bat (*Pipistrellus subflavus*) hibernating in a cave on her property in Pulaski County. Bats roost upside down because they use gravity to help them take flight. In fact, some species cannot fly from flat surfaces at all. Private caves are increasingly important in bat conservation. We're lucky to have a number of Missouri landowners working with the Department to manage these habitats.

Conservation gave me a red oak to plant (1974). I planted it in my parents' backyard and took care of it for years. That gift tree and experience made me a real "tree hugger." I have since planted hundreds of trees over the years, everywhere I have lived.

The seedlings I have purchased

from the Missouri Department of Conservation were thick with root stock and took well to the soil and their new homes.

Thanks to the tree stewards working for our great state for the wonderful trees. Ours are doing well.

Dr. Page Crow, Independence

The letters printed here reflect readers' opinions about the Conservationist and its contents. Space limitations prevent us from printing all letters, but we welcome signed comments from our readers. Letters may be edited for length and clarity.

Ask the Ombudsman



Q: In the past few years, our farm pond of approximately 1 acre has been inundated with pea-green little granules on top. I have asked a lot of people and they say you can't get rid of it. I have already used a copper chemical. It did not work. What is it, and what can we do?

A: Sounds like you're dealing with duckweed. Copper sulfate won't help much with duckweed, as that's a remedy for algae. Here's a page from the Department's Web site that will help you identify pond vegetation: www.missouriconservation.org/nathis/plantpage/flora/wetplant/nuisance.htm. See www.missouriconservation.org/documents/fish/aqua/guides/2_306.pdf or contact your local MDC office for information about duckweed.

Chemical control is only one of several methods used to control unwanted vegetation. Be sure to carefully read and follow directions when using herbicide.

While we're on the topic of ponds, this would be a good time to mention that the Department of Conservation provides fingerling bass, channel catfish and bluegill to landowners whose ponds meet certain qualifications. The stocking application deadline is July 15. For details please see www.missouriconservation.org/documents/fish/ponds/pondapp.pdf or contact your local conservation office.

The Department encourages landowners participating in this program to enjoy the angling opportunities stocking will provide, but they are not obliged to allow the public access to the pond. The landowners always determine who will fish on their property.

For those landowners who don't qualify for the stocking program or who have an interest in different varieties of fish, there are a number of commercial fish providers who can supply their needs. For information about fish suppliers, please see www.missouriconservation.org/documents/fish/fishdealers.pdf. Contact your conservation office and ask to speak with staff from Fisheries or Private Lands for advice on managing a balanced fishery.

Ombudsman Ken Drenon will respond to your questions, suggestions or complaints concerning Conservation Department programs. Write him at P.O. Box 180, Jefferson City, MO 65102-0180, call him at 573/522-4115, ext. 3848, or e-mail him at Ken.Drenon@mdc.mo.gov.

MISSOURI CONSERVATIONIST

GOVERNOR Matt Blunt

THE CONSERVATION COMMISSION

Stephen C. Bradford
Chip McGeehan
Cynthia Metcalfe
Lowell Mohler

DIRECTOR John Hoskins

ASSISTANT DIRECTOR Denise Garnier

ASSISTANT DIRECTOR John W. Smith

ASSISTANT DIRECTOR Robert Ziehmer

INTERNAL AUDITOR Nancy Dubbert

GENERAL COUNSEL vacant

DIVISIONS

ADMINISTRATIVE SERVICES Carter Campbell

FISHERIES Steve Eder

FORESTRY Lisa G. Allen

HUMAN RESOURCES Debbie Strobel

OUTREACH & EDUCATION Lorna Domke

PRIVATE LAND SERVICES Stephen J. Wilson

PROTECTION Dennis Steward

RESOURCE SCIENCE Dale D. Humburg

WILDLIFE Dave Erickson

CONSERVATIONIST STAFF

EDITOR IN CHIEF Ara Clark

MANAGING EDITOR Nichole LeClair

ART DIRECTOR Cliff White

WRITER/EDITOR Tom Cwynar

OUTSIDE IN EDITOR Joan McKee

ARTIST Dave Besenger

ARTIST Mark Raithel

PHOTOGRAPHER Jim Rathert

PHOTOGRAPHER Noppadol Paothong

STAFF WRITER Jim Low

DESIGNER Susan Fine

DESIGNER Les Fortenberry

DESIGNER Marci Porter

CIRCULATION Laura Scheuler

The *Missouri Conservationist* (ISSN 0026-6515) is the official monthly publication of the Missouri Department of Conservation, 2901 West Truman Boulevard, Jefferson City, MO (Mailing address: P.O. Box 180, Jefferson City, MO 65102.) Subscription free to adult Missouri residents; out of state \$7 per year; out of country \$10 per year. Notification of address change must include both old and new address (send mailing label with the subscriber number on it) with 60-day notice. Preferred periodical postage paid at Jefferson City, Mo., and at additional entry offices. Postmaster: Send correspondence to Circulation, P.O. Box 180, Jefferson City, MO 65102-0180. Phone: 573/751-4115. Copyright © 2006 by the Conservation Commission of the State of Missouri.

Equal opportunity to participate in and benefit from programs of the Missouri Department of Conservation is available to all individuals without regard to their race, color, national origin, sex, age or disability. Questions should be directed to the Department of Conservation, P.O. Box 180, Jefferson City, MO 65102, (573) 751-4115 (voice) or 800-735-2966 (TTY), or to the U.S. Fish and Wildlife Service Division of Federal Assistance, 4401 N. Fairfax Drive, Mail Stop: MBSP-4020, Arlington, VA 22203.

Printed in USA

Printed on recycled paper with soy ink

Woodland *Wildlife*

Management restores the natural habitat that Ozark quail require.

by Rhonda L. Rimer and Robert N. Chapman

Missouri once had so many bobwhite quail that people trapped them for sale to East Coast markets. In fact, settlers in the mid-1800s recorded daily catches numbering in the hundreds—an astonishing number by today's standards!

Quail were even abundant in the heavily wooded Ozarks. That's because fires, natural or started by people, maintained open woodland communities. Grasses, wildflowers and legumes flourished in these woodlands, providing food for quail, as well as excellent cover for nesting and shelter.



Quail are at home in open woodlands where grasses and forbs can grow. The tree canopy provides protection from predators, wind and snow.



PHOTOS BY JIM RATHER



Henry Rowe Schoolcraft, a naturalist who traveled extensively through the Missouri and Arkansas Ozarks in the early 1800s, described these woodlands:

"A succession of hills of moderate elevation, covered chiefly by oaks without underbrush. A tall, thick and rank growth of wild grass covers the whole country, in which the oaks are standing interspersed, like fruit trees in some well-cultivated orchard, and giving to the scenery the most novel, pleasing and picturesque appearance."

This general picture of the Ozarks is echoed in historical Government Land Office survey notes and in the writings of hundreds of early travelers to the area. These travelers also reported large numbers of quail. For example, Aldo Leopold, the widely professed "father" of wildlife management, describes days of quail hunting and evenings of quail dinners in journal entries from his time in Current River country in 1926.

By the end of the 20th century, however, quail numbers in Missouri and throughout the bird's natural range were showing a long-term decline.

The drop can be traced to the loss of critical grassland and woodland natural communities. The numbers of many species of songbirds, woodpeckers, reptiles, amphibians, plants and insects that depend on these types of habitat also have declined. In fact, one of these species, the red-cockaded woodpecker, has disappeared from Missouri, and many others, including Bachman's sparrow, are now endangered.

Open woodlands provide exceptional habitat for quail. The tree canopy in woodlands reduces snow and ice accumulations and blocks the cold wind. Beneath the tree canopy, the grasses and forbs provide the nutri-

For More Quail

To learn more about managing quail on your land, go online at www.missouriconservation.org/landown/quail.

For a free publication on quail management, write to MDC, "On The Edge," P.O. Box 180, Jefferson City, MO 65102 or e-mail pubstaff@mdc.mo.gov.



tious and diverse food sources and the protective cover critical to bobwhite quail.

Conservation Department biologists know that the only way to increase quail numbers in Missouri's Ozarks and improve the lot of the many species that need habitat similar to quail is to restore woodland natural communities.

It's easier to say you're going to restore habitat than to do it, especially when the habitat required normally takes hundreds of years to develop naturally. However, accelerated woodland restoration programs are well underway on several conservation areas in the Ozarks.

Two of the areas, White River Trace Conservation Area in Dent County and Cover Prairie Conservation Area in Howell County, are already showing the benefits of extensive woodland and shrubland management.

At White River Trace, for example, at least 114 bird species, many of which have habitat requirements similar to quail, have been spotted. These species include Bell's vireo, loggerhead shrikes, prairie warblers and field sparrows. In addition, red-headed woodpeckers have substantially increased in number.

Burn benefits

Fire is as important as rainfall to woodland natural communities. Department biologists rely on fire on White River Trace and Cover Prairie to open the woodland overstory. This allows the sun's rays to reach the ground, encouraging the growth of grasses, wildflowers and legumes. The grasses supply nesting cover for quail hens, while wildflowers and legumes offer abundant food for quail throughout the year. Insects, critical to quail chicks during their first few weeks of life, also increase among the ground cover.



PHOTOS BY JIM RATHERT

Accelerated woodland restoration programs are underway in the Ozarks.



Gray fox



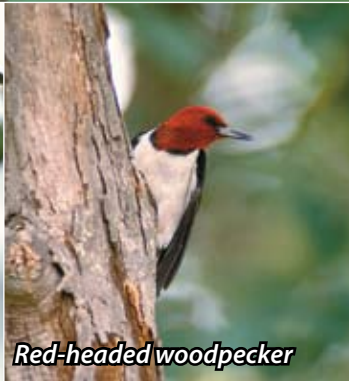
Indigo bunting



Southern flying squirrel



Prairie warbler



Red-headed woodpecker



Eastern gray treefrog

Restoring woodland natural communities benefits many species that depend on similar habitat as quail.

Biologists time burns for the results they wish to achieve. Fire in summer and fall promotes forbs and weedy plants that quail use, while fire in late winter and spring stimulates native grasses, controls woody plants and reduces tree canopy cover. Most portions of managed woodlands are subjected to fire at least once every three to five years to prevent the accumulation of excessive fuel.

The result of these artfully applied fires is a patchwork of burned and unburned areas. The unburned areas provide refuge for wildlife during fires. They also serve as usable habitat until the burned areas regrow and as islands of vegetation to help reseed burned areas.

Monitoring of the woodlands following fire management has shown increases in fall abundance of quail on both White River Trace and Cover Prairie. Quail hunters are applauding these management successes.

Another success story

Woodland management at Peck Ranch Conservation Area, deep in Carter County, has different habitat goals,

but it's also increasing quail numbers.

Long ago, the area contained many short leaf pine and mixed pine-oak stands. After clearing, indiscriminate burning and being subjected to free-ranging livestock in the late 1800s and early 1900s, these stands gave way to closed-canopy forests consisting primarily of short-lived scarlet and black oaks. Quail and other birds of open woods disappeared.

The mature oaks are now dying. This provides an opportunity to restore the diverse pine-oak woodlands that once dominated by clearing some of the areas and planting pine trees among the remaining oaks.

Short leaf pine seed is a favorite food of bobwhite quail, and the oak trees provide a dependable source of carbohydrates that quail and other wildlife species require during late fall and winter.

Prescribed fire is an important component of restoration here, as it is at White River Trace and Cover Prairie. It encourages growth of valuable herbaceous plant cover.

Quail whistle counts on the restoration areas and visitor reports indicate that the management is already showing success. Although no coveys were known to be



JIM RATHER

Quail populations should continue to flourish if open woodlands are maintained.

Prescribed Burn Safety Tips

- ▲ Learn how to conduct a prescribed burn. Your regional MDC office can give information on prescribed burn training in your area (see page 1 for regional office phone numbers). You will learn how to use fire to accomplish management goals, how to write a burn plan and techniques to conduct a burn safely.
- ▲ If you don't feel comfortable doing the burn yourself, hire a qualified conservation contractor to do it for you. For a list of contractors and their services go to www.mdc.mo.gov/cgi-bin/mdcdevpub/apps/contactsnonmdc/main.cgi.
- ▲ Prepare a burn plan and stick to it. The plan should outline what you want to accomplish with the burn, the conditions needed to conduct the burn safely and what resources you will need. If the conditions of the burn plan cannot be met on the day of the burn, postpone it.
- ▲ Prepare for the burn. Put in fire breaks, gather needed equipment and make arrangements with the appropriate number of people to help out.
- ▲ Check the weather. Fire behavior is largely influenced by weather and can become dangerous when humidity drops and wind speed increases. Call off the burn if the weather forecast doesn't match your burn plan.
- ▲ Prior to the burn, contact your local fire department. Check if burning is permitted and be sure to tell them the specifics of your burn plan: where you will be burning, for how long and in what type of fuel. Notify neighbors of your plans to burn.
- ▲ If the fire escapes your control, contact your local fire department or MDC office immediately. You can be held liable for damages to neighboring land and structures if your fire escapes.



CLIFF WHITE

A combination of burned and unburned areas ensures that wildlife has diverse food and cover.



Fire promotes the growth of forbs, weedy plants and native grasses, and it controls woody plants and tree canopy cover.

on the area four years ago—before restoration—several coveys have been observed during the past year.

Quail numbers may decrease slightly as plant succession proceeds from an early successional stage to open woodland, but quail should continue to flourish as long as open woodlands can be maintained.

Although the Missouri Ozarks now contain relatively little of the prime open woodlands that once supported large numbers of quail, efforts are underway on public land to restore as much of this valuable habitat as possible.

Biologists are optimistic that, with restoration of woodland landscapes

in the Ozarks, Missouri citizens will see an increase in the numbers of quail and other species that depend on these natural communities. As one biologist put it, “If we build it, they will come.” ▲

More Quail-Friendly Forest Management Techniques

Opening the forest canopy allows sunlight to reach the forest floor. This stimulates growth of shrubs and grasses, creating favorable habitat for quail and other wildlife. Prescribed fire is just one of the techniques you can use to accomplish this. Your local private lands conservationist, forester, conservation agent or wildlife biologist can recommend others (see page 1 for regional office phone numbers). Here are several you might consider:

- ▲ **Edge feathering** is a great way to provide escape cover for wildlife. Cut trees in a strip 50 feet wide around the forest perimeter. Leave the tops of the trees for cover. Within a few years, weeds and shrubs will grow through the downed trees, creating ideal habitat.
- ▲ **Timber stand improvement** (TSI) is the process of thinning the forest of poorer trees, leaving less competition for those remaining. Many use TSI to obtain firewood and improve timber quality, but it also creates small gaps in the forest canopy.
- ▲ **Timber harvest** is a cost-effective way to create quail habitat. Trees can be cut for firewood or sold for lumber. In small forests, consider using group cuts. If your forest is more extensive, you might use small clear cuts. Both will create patches of habitat for quail and other wildlife.

Mountain Lions IN MISSOURI

The Mountain Lion
Response Team
confirms reports
and busts myths.

by Dave Hamilton



Only eight mountain lions have been documented in Missouri since 1994.

Fact or Fiction?

One hot wildlife question being debated in coffee shops, sporting goods stores and Internet chat sites across Missouri goes something like this: “Do we have mountain lions here or not?” The short answer is yes, sometimes. But we have far fewer than rumors would lead you to believe.

What we do not have is any evidence of a viable, breeding population of mountain lions in Missouri. As a result, the Missouri Department of Conservation has changed the state classification of the species from endangered to extirpated. An extirpated species is one that is considered extinct as a viable breeding population from a portion of its historical range.

The Conservation Commission has determined that, based on considerations of human safety and risk to livestock, it is undesirable to have a breeding population of mountain lions in Missouri. Therefore, the Department of Conservation will not encourage the species to reestablish itself in the state. Despite rumors, the Department has never stocked mountain lions and will not do so in the future.

Once there were lions

Although mountain lions, sometimes called cougars, pumas, panthers or catamounts, were common in Missouri and elsewhere in the Midwest prior to European settlement, they were eradicated during the 19th century. As the countryside was settled and developed, the large predators were shot. People also killed almost all of the deer, the mountain lions’ primary food source.

The last native wild mountain lion in Missouri was killed in 1927. They were extirpated from Iowa by 1867, Nebraska by 1890, Kansas by 1904 and from Wisconsin by 1908. Though populations of mountain lions survived in remote mountainous terrain in western states, no verifiable evidence exists to suggest that they survived anywhere in the Midwest, outside of the Black Hills of South Dakota.

However, many Missourians probably know someone who claims to have seen a mountain lion recently. Or, they’ve heard rumors of mountain lion

NOPPADOL PAOTHONG

NOPPADOL PAOTHONG



sightings offered as proof that the species has reclaimed old habitats, or never really disappeared. Hundreds of eyewitness accounts, second-hand testimony and other stories circulate in communities across Missouri, causing lots of discussion and concern. In the search for evidence, however, it is important to distinguish between a reported sighting and a “confirmed” mountain lion report.

The lion trackers

The Mountain Lion Response Team was formed in 1996 to investigate sightings, respond to calls and collect and analyze physical evidence of the presence of mountain lions in Missouri. We provide information and training to Conservation Department employees and service to the public. We have had training from mountain lion experts in Wyoming, Texas, North Dakota, South Dakota and Florida.







One important lesson learned in our training is that mountain lions are so secretive that they are rarely “seen” by people. However, physical proof of their existence in these other states is easily found.

Our search for hard evidence here in Missouri, such as photos (verified), cougar carcasses, scat with cougar DNA, videos, tracks, etc., has turned up a few, but not many, confirmed mountain lions. Difficult as it may be to obtain, hard evidence is required before we can say, “Yes, we have a confirmed mountain lion.” It is important that we maintain credibility with the public, and it would be irresponsible to make statements about the presence of a large predator like the mountain lion without solid evidence.

We have had only a handful of confirmed mountain lions in Missouri, despite hundreds and hundreds of reports. There have been eight confirmed mountain lions since 1994. One of these was hit by a car near downtown Kansas City in 2002, and another in 2003 near Fulton.

Missing from Missouri is the physical evidence that is left by a viable, breeding population of mountain lions. In the area of every documented population in the U.S., biologists are able to locate numerous tracks, prey kills, scrapes (made when lions scent-mark their territories), and photos, which are often available from

Characteristics of Mountain Lion vs. Dog Tracks

| | | | |
|--|--|---|--|
| <p>A. narrow claw marks rarely present</p> <p>B. tear-drop shaped toes</p> <p>C. front edge of heel pad is flat</p> |  |  | <p>A. blunt claw marks usually present</p> <p>B. rounded toes</p> <p>C. front edge of heel pad is rounded</p> |
| <p>Front</p>   <p>Hind</p> | <p>D. two distinct indentations between three lobes</p> <p>MOUNTAIN LION</p> <p>A. Claw marks generally absent. If present, they will be sharp and narrow.</p> <p>B. Four tear-drop shaped toes, grouped asymmetrically.</p> <p>C. Trapezoidal-shaped heel pad.</p> <p>D. Three-lobed heel pad with two indentations along rear margin.</p> | <p>D. no distinct indentations or only two outside lobes</p> <p>DOG</p> <p>A. Toenail prints generally present will be broad and blunt.</p> <p>B. Four, round-shaped toes, grouped symmetrically.</p> <p>C. Triangular-shaped heel pad.</p> <p>D. Heel pad lacks distinct indentations and three-lobed appearance.</p> | <p>Front</p>   <p>Hind</p> |

the many motion-detecting game cameras that hunters use to monitor trails. Also, frequent mountain lion road-kills turn up, of all ages and of both sexes.

South Dakota estimates they now have a population of 165 mountain lions in the Black Hills, and 40 mountain lion carcasses turned up last year. More than 20 died in vehicle collisions in the last two years alone, despite the area's relatively low human population and road density. So if we had many mountain lions at all in Missouri, we would almost certainly have more evidence than we do now.

Biologists in Arkansas and Oklahoma have reached the same conclusion as we have after years of searching: They have documented wandering individuals, but no evidence yet of viable populations. The nearest populations are in Texas, Colorado, Wyoming and South Dakota. New evidence suggests that they are in the process of colonizing parts of western Oklahoma, northwest Nebraska, and western North Dakota.

Some sightings explained

But what about the hundreds of sightings reported in Missouri? Some of the sightings turn out to be other animals, and mistaken sightings are rampant.

Dog tracks and dogs themselves are the number one and number two cases of misidentification. Tracks are difficult for most people to distinguish because subtle differences in the details of the tracks distinguish dogs from mountain lions (dog tracks usually show claw marks, where cat tracks rarely do), and dogs can leave tracks larger than mountain lions. Some reports are accompanied by photos and videos, and upon close inspection we find that they are photos of bobcats, coyotes, foxes, house cats and other animals. Even in the western states where thousands of mountain lions are present, bona-fide sightings are rare and misidentification is the rule rather than the exception.

The recent bobcat population expansion in northern Missouri is partly responsible for some mistaken sightings of mountain lions. Many people aren't familiar with bobcats, and the casual observer may confuse them with mountain lions. Their tracks look similar except for size, and a bobcat can kill an adult-sized deer, hiding the carcass under a pile of leaves or grass

NOPPADOL PAOTHONG



Dog tracks are similar to mountain lion tracks, but may be larger. One of the easiest ways to distinguish the two is by looking for claw marks. Dog tracks have claw marks, but mountain lion tracks rarely do.

like a mountain lion might. Freshly killed deer carcasses have been submitted as evidence, but analysis has revealed bobcat attack rather than mountain lion.

Is that what I think it is?

The mountain lion is a large, slender cat with a small head, small, rounded ears that are not tufted, powerful shoulders and hindquarters, and a cylindrical tail that is long and heavy. The tail has a small dark hook in the end and usually hangs down next to the hind legs. The body fur is short and soft.

The adult mountain lion is distinguished from the bobcat by its large size (total body length of 60 to 102 inches); uniform coloration of grizzled gray or dark brown to buff or light orange; and a tail length of 21 to 35 inches (up to half its body length). A male mountain lion weighs 140 to 160 pounds, while a female weighs 90 to 110 pounds.

Though a popular myth, black panthers do not exist in the wild in North America. A black panther is a melanistic version of a large cat, usually an African leopard or a jaguar. These can sometimes be seen in zoos. Melanistic refers to the unusual black coloration produced by a hereditary, genetic mutation. There has never been a black mountain lion documented anywhere in their range.

Mountain lions prefer dense cover or rocky, rugged terrain, generally in areas of low human habitation, or regions of dense swamps. The size of the home range is typically 50 to 75 square miles for females and 90 to several hundred square miles for males. Mountain lions are generally nocturnal and are active near dawn and dusk. They feed on deer and other medium-sized and

large mammals. On average, a typical adult lion kills and consumes about one deer per week.

Female mountain lions have litters of 2 to 3 kittens. Blind and 12 inches long at birth, they weigh about 1 pound. They are buff, spotted with black, and have dark rings on their tails. Once they stop nursing, the female carries food to them until they accompany her at about 2 months of age. The kittens lose their spots gradually. They are usually gone by 18 months of age, when young lions begin to leave home.

Adult females often share territory with their female offspring, although some disperse. Adult males are solitary and territorial and may kill other males and kittens they encounter. This forces young males to leave these territories in search of suitable, unoccupied areas.

Mountain lion populations in western states have grown recently, and as the habitats fill up, new animals born each year have to travel farther locate suitable living space. In the Midwest and eastern Texas, biologists have confirmed physical evidence of mountain lions at least 65 times since 1990.

Recently several mountain lions made headlines when they were killed by cars, trains or police officers in suburban neighborhoods in Midwestern towns. Some biologists believe that they made use of travel corridors along the Missouri River and other rivers. Young male mountain lions have wandered into Fulton, Missouri; Kansas City, Missouri; South Sioux City, Nebraska; Yankton, South Dakota; and Omaha, Nebraska. In central Iowa, hunters killed one young male lion and a trail camera caught another on film.

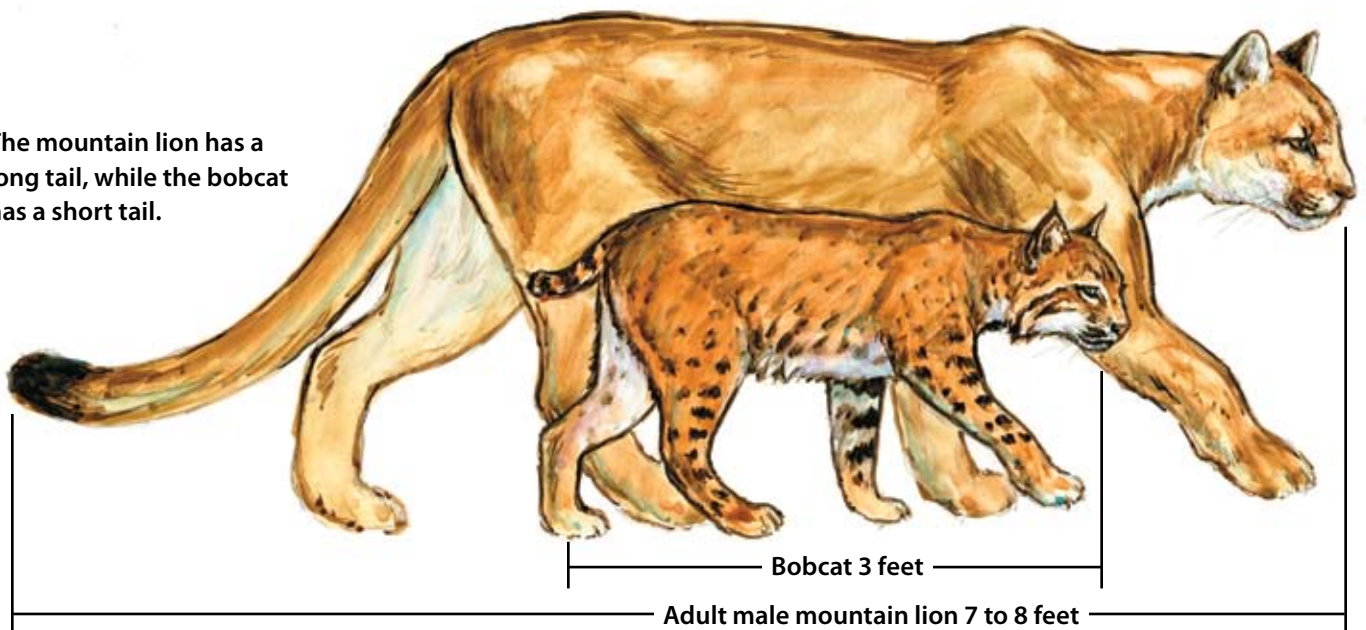


Bobcats are often mistaken for their larger mountain lion relatives. They share many physical and behavioral traits.

Biologists in South Dakota estimate that each year 20 to 25 yearling mountain lions—mostly males—are leaving the Black Hills, forced out by adult males that already occupy the best habitats. One animal was fitted with a radio collar that had been attached during a study of lion survival. It moved 667 miles before it was struck by a train in northern Oklahoma. Another radio-marked male traveled more than 500 miles into northern Minnesota. A recent report documented a radio-marked female from Utah that moved more than 830 miles, roaming through parts of Wyoming and Colorado.

This evidence supports the fact that mountain lions do roam and that some of these animals have made it to Missouri. Mountain lions that escape from captivity could be another source of sightings. Nearly 30

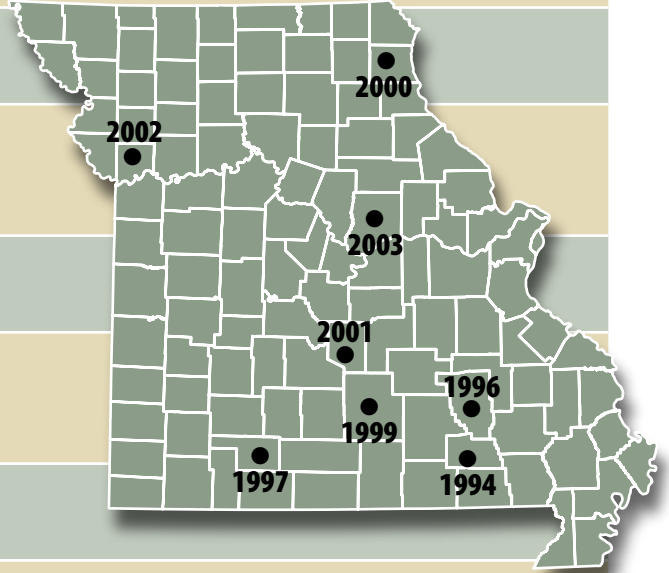
The mountain lion has a long tail, while the bobcat has a short tail.



Confirmed Instances of Mountain Lions in Missouri

The following instances have been confirmed by the MDC Mountain Lion Response Team. However, the origin of these animals (i.e. escaped/released captive or pioneer from other state) is unknown.

| | |
|--|--|
| 2003—August Callaway County | An approximately 1-year-old male road kill. There were no obvious signs that it was formerly a captive animal. DNA analysis revealed its origin to be North America. |
| 2002—October Clay County | A 2- to 3-year-old male road kill. DNA analysis revealed its origin to be North America. |
| 2001—December Pulaski County | A photograph was taken by a motion-detecting game camera. After a lengthy evaluation, it was determined that it is likely a small, sub-adult mountain lion. |
| 2000—December Lewis County | A video was taken by a deer hunter from a tree stand. |
| 1999—January Texas County | An adult-sized lion was treed by a rabbit hunter's dogs. Tracks in the snow (photos taken) and two deer carcasses characteristic of lion kills were found nearby. |
| 1997—January Christian County | A video was taken by a property owner. The animal's behavior implied it had once been held in captivity. |
| 1996—November Reynolds County | A video was taken by a conservation agent of a mountain lion with a deer carcass. |
| 1994—December Carter County | A small adult female was treed and shot by two raccoon hunters near Peck Ranch CA. The carcass was never recovered, but a photo was obtained of the animal on a truck tailgate. Each hunter was fined \$2,000. In Nov. 1998, a deer hunter found the skinned pelt of a small adult, a female with head and feet attached, near a remote Texas County road. Evidence suggests this is the same animal killed in Carter county. |



Missourians have permits to have mountain lions in captivity.

For now, the official population status of mountain lions in Missouri is extirpated. However, because of their dispersal patterns, mountain lions may occasionally enter the state. Most of them will likely be males, but an occasional female may make it to Missouri. Rumors will continue to abound, so carefully consider the evidence, and be aware that the Department will be diligent to make our discoveries well publicized.

Safety and reporting

The prospect of increasing mountain lion populations in Missouri causes a feeling of alarm for some folks. They cite the quickly growing bobcat population in the Midwest and are concerned that mountain lions could do the same thing if left unchecked. Missouri annually ranks among the top states for the number of cattle raised, and the potential presence of mountain lions causes much concern among producers. There have

been no reports of mountain lions attacking people in Missouri, and no evidence of attacks on livestock or pets.

Our *Wildlife Code* continues to protect mountain lions from indiscriminant shooting, but also allows citizens to protect themselves and their property. It states, "*Mountain lions attacking or killing livestock or domestic animals, or attacking human beings, may be killed without prior permission, but the kill must be reported immediately to an agent of the department and the intact mountain lion carcass, including pelt, must be surrendered to the agent within twenty-four (24) hours.*"

If you have evidence of a mountain lion, or a sighting, please contact the Missouri Department of Conservation. For regional office phone numbers, please see page 1. If you have physical evidence, you can also e-mail the Mountain Lion Response Team at mountain.lion@mdc.mo.gov.

For more information on mountain lions go to www.missouriconservation.org and type "mountain lion" under "search." ▲



The Celebration Continues

by Ann Koenig, photos by Cliff White



Left: The deck at Grand Bluffs overlooks the Missouri River. Above: Diana Bend has added two decks and a wildlife blind.

Central Region conservation areas get makeovers in honor of the Lewis & Clark bicentennial.

Here's a riddle for you: What do the Missouri towns of Bluffton, Hart Creek and Rocheport have in common?

The answer is that they all are communities located in the Central Region, adjacent to the Missouri River. They also happen to have conservation areas nearby with new developments on them.

The Missouri Department of Conservation has recently focused on enhancing some of the conservation areas in the Central Region, and it is concentrating efforts on those near the Missouri River. The developments are part of the Lewis and Clark bicentennial celebration and are designed to promote education of conservation and the Missouri River, as well as

increase opportunities for the public to enjoy their conservation areas.

So follow along and learn about the new opportunities Missourians have to enjoy conservation areas in the central part of the state.

Grand Bluffs Conservation Area

In 2003, construction began on a 1-mile trail and a deck overlook. The deck sits atop a 300-foot-tall fluted dry dolomite bluff that rises above the Missouri River floodplain and provides a serene view of the Missouri River, bottomland fields, Highway 94 and adjacent bluffs.

At the overlook, you can read an interpretive sign about Lewis and Clark and the Missouri River, study





the glade-loving plants that surround the deck on a grassy knob, observe farmers working their crops in the bottomland fields below and enjoy the scenic vista that stretches both far and wide.

Grand Bluffs Scenic Overlook Trail leads users through maple/oak forest, prairie and an old orchard where a pear tree still bears in the fall to the deck overlook. The area is particularly gratifying to visit in the spring when woodland wildflowers abound and in the autumn for the bright fall colors. Hunting on the area is permitted under statewide regulations except that firearms firing single projectiles are prohibited. This 222-acre area is mostly forest and contains savanna, prairie and glades.

Grand Bluffs Conservation Area is located five miles east of Portland along Highway 94 in Montgomery County, a quarter-mile off Highway 94 on Bluffton Road. The Katy Trail runs along the southern border of the area.

Hart Creek Conservation Area

Driving along Jemerson Creek Road north of Hartsburg, you may notice a new development on Hart Creek Conservation Area. On the west side of the road is a new pedestrian and bicycle bridge crossing Jemerson Creek. This bridge allows area users to access a 1.5-mile bicycle and hiking trail that bisects the area and ends on the opposite side along the Katy Trail.

A deck overlook is also being built on a spur off the trail. It provides a view of the Missouri River at a dramatic bend, as well as Marion Bottoms Conservation Area on the opposite side of the river. This area

A disabled-accessible boardwalk connects the Katy Trail to Diana Bend.

can be accessed by gravel road on the east or the Katy Trail on the west. A primitive camping site for users who want to camp off the Katy Trail is also available at this location.

Crappie fishing on a 5-acre pond and both mushroom and turkey hunting are popular activities in the spring. Fall is a good time to enjoy the colorful sugar maples and basswood trees along the ridge trail.

Hartsburg also happens to be famous for its Pumpkin Festival. Many years, the fields below the bluffs of Hart Creek Conservation Area at the Overlook site yield hundreds of bright-orange pumpkins in the fall.

Hart Creek Conservation Area is 657 acres and is located three-quarters of a mile northwest of Hartsburg on Jemerson Creek Road in Boone County.



Above: An overlook is assembled at Hart Creek CA, just off of the 1.5-mile bicycle and hiking trail. **Right:** A deck will be built on a limestone bluff at Eagle Bluffs, allowing visitors to view both waterfowl and wetland management.

Diana Bend Conservation Area

If the quaint town of Rocheport and the picturesque section of the Katy Trail between Moniteau Creek and the I-70 bridge were not attractive enough to entice you to this part of the state, Diana Bend Conservation Area now offers new developments sure to please enthusiasts of boardwalks, birding, waterfowl hunting or scenic views.

Winner of a Coalition for Recreational Trails Award, the project at Diana Bend Conservation Area consisted of constructing two new trails, two viewing decks and a wildlife viewing blind. A disabled-accessible boardwalk leads users from the Katy Trail at the old railroad tunnel (just west of Rocheport) around the hillside to an open platform and wildlife viewing blind. From the accessible blind, a person can observe the floodplain and wetland restoration in progress or sneak a peek at the variety of waterfowl and shorebirds that use this river area.

Leading uphill from the viewing platform is a second, steep wood-chipped trail. This trail traverses the hill the train tunnel passes through and ends at a higher overlook with commanding views of the conservation area wetlands and the Missouri River.

Diana Bend Conservation Area is 1,343 acres. More than half wetlands, it also contains riparian forest, old fields and cropland.

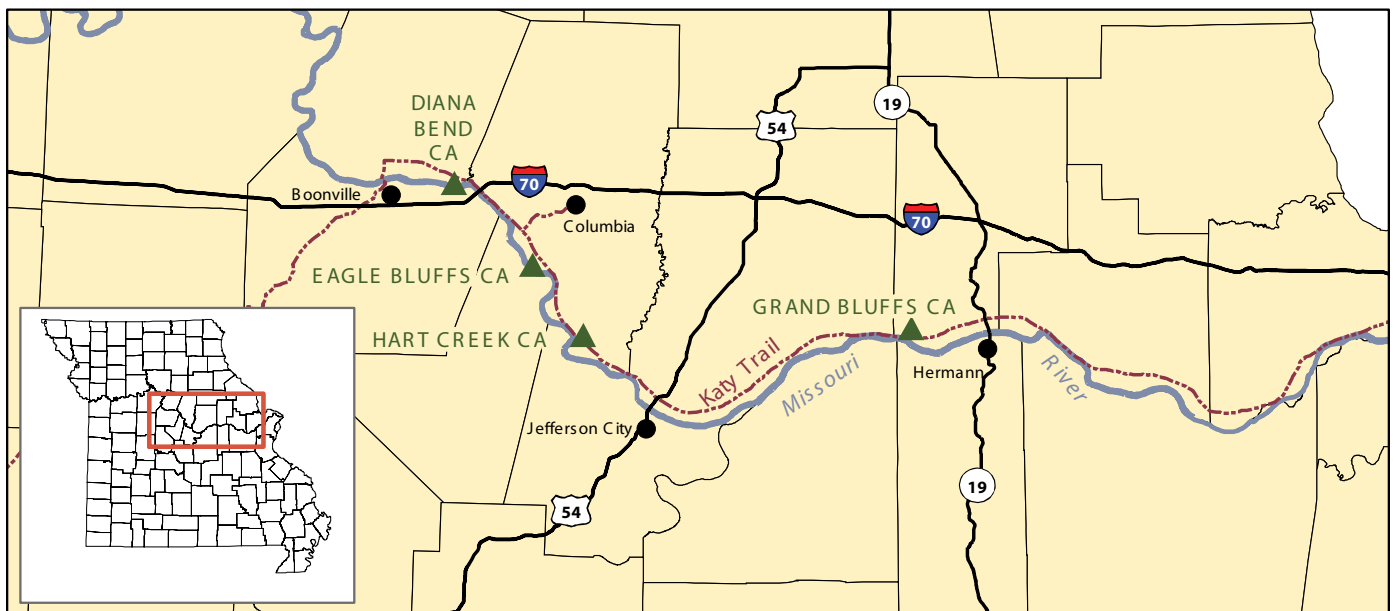
You can access developments at Diana Bend Conservation Area by traveling an eighth of a mile west of Rocheport on the Katy Trail. Rocheport is two miles northwest of Hwy. I-70 at the Missouri River Bridge on Hwy. BB in Boone County.

And a sneak preview...

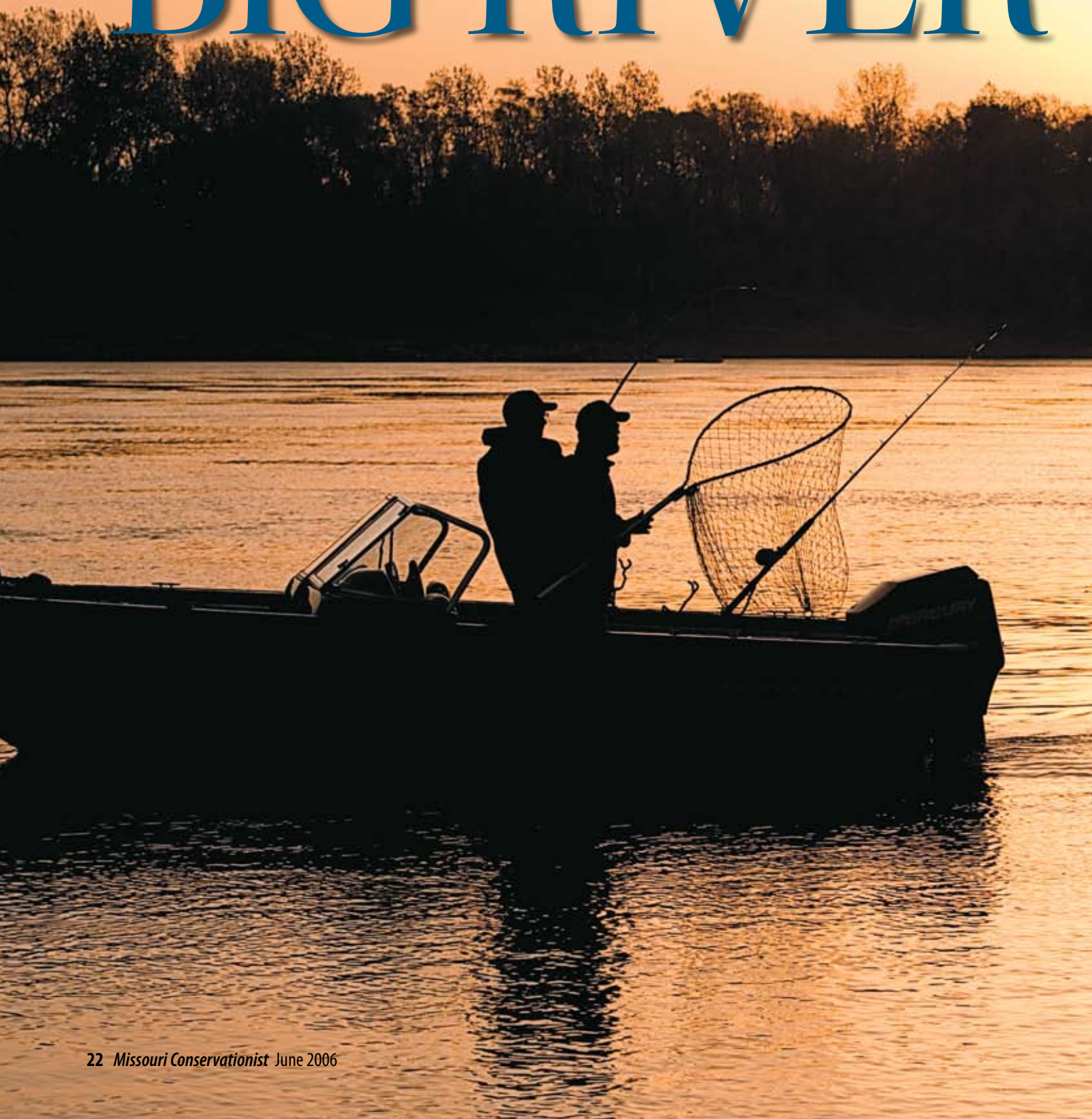
In addition to these three conservation areas, similar development is occurring on Eagle Bluffs Conservation Area near McBaine in Boone County. A deck overlook and a set of steps leading from the base of an immense limestone bluff to the top is in the works. This will allow users to view wetland management and the abundance of waterfowl at Eagle Bluffs Conservation Area.

All the areas mentioned here are either adjacent or in close proximity to the Katy Trail, which is managed by the Missouri Department of Natural Resources. So, get out and enjoy the Central Region, its varied trails and conservation areas and the Missouri River.

Questions about these and other Central Region conservation areas can be answered by calling the Missouri Department of Conservation Central Regional Office at 573/884-6861. Information on all conservation areas can be found in the online Conservation Atlas at www.missouriconservation.org. ▲



Catching BIG RIVER





BLUES

Big game fishing on the Mississippi and Missouri — St. Louis style.

by Danny Brown, photos by Cliff White

We motored up the Mississippi just after dark to a fleet of moored barges. A few miles upstream from the mouth of the Missouri River, we anchored next to the rusty leviathans. I mentioned to Carl that it seemed like a peculiar place to catch catfish.

He baited my line without asking me if I needed help and showed me where to cast. Ten minutes later, I was reeling in a huge mass of flesh and whiskers under the industrial lights of the barge repair depot.

As Carl netted the blue catfish, he guessed the weight at 35 pounds. “Nice fish,” he said, not overly impressed. A quick check on the digital scale put the fish at 38 pounds, by far the biggest catfish I had ever caught on pole and line. As he cut off another skipjack’s head and slid it onto my hook, he added, “Let’s see if you can do a little better; the night’s still young.”

St. Louis is home to the confluence of our nation’s two greatest rivers, the Mississippi and the Missouri. As a fisheries management biologist for the Missouri Department of Conservation, I have promoted fishing big rivers through seminars, hands-on fishing workshops, and brochures. Occasionally, people also approach me on their own (usually by phone) to ask how to safely navigate and fish the Missouri or Mississippi rivers. That’s how I met Carl Roberts, a 51-year-old electrician.

Carl had been bank fishing on the Mississippi River with night crawlers and stink bait for a couple of years, but he rarely caught a catfish over 5 pounds. After watching anglers come in from the river in fishing boats with blue cats up



Kevin Krause (left) caught this 80-pound blue catfish with Carl Roberts' (right) methods and a fair bit of help.

to 50 pounds and larger, he decided it was time for a new challenge. A few months later, Carl was plying the Missouri and Mississippi rivers in a 17-foot, deep-V aluminum boat. His quarry was blue catfish—or more specifically, *big* blue catfish.

During that period, beginning about five years ago, I heard from Carl often. He asked about everything from river hazards to bait and catfish habitat. I helped him to the best of my ability, but I eventually steered him toward popular fishing magazines, including *In-Fisherman's Catfish Insider*, to get the latest information on catching big blues. It took a few years, but Carl's efforts paid off. Now, he routinely catches blue cats in the 30- to 40-pound range and caught 65- and 72-pounders last year.

Carl's culminating achievement began a few weeks ago, when *In-Fisherman's Catfish Insider* writers and photographers accompanied him to the confluence of the Missouri and Mississippi rivers. They wanted to document his methods of catching blues by rod and reel.

Fishing was slow, but Carl managed to catch a 35-pounder on the second day. The icing on the cake came a week later when, during a three-hour photo shoot for this article, he took my friend Kevin Krause to one of his favorite spots on the Missouri River. Kevin, with a lot of help, boated an 80-pound behemoth!

So, is Carl Roberts special, or can anyone learn to boat big blues on big rivers? There is no doubt that Carl is above average as catfish anglers go, but with a little education, persistence and common sense, most anglers can gain access to quality-sized blue catfish in Missouri's big rivers. This article provides some introductory education. The reader is responsible for the persistence and common sense.

Stalking the cat

The Missouri and Mississippi rivers are home to the blue catfish (*Ictalurus furcatus*), the channel catfish (*Ictalurus punctatus*) and the flathead catfish (*Pylodictis olivaris*). Anglers should learn to identify these three

catfish and become familiar with the regulations that apply to them on Missouri's big rivers.

Because blue catfish and channel catfish are similar in appearance, they were formerly lumped together under the same Missouri regulation, which allowed anglers to keep up to 10 channels and blues in any combination each day. In order to better manage blue catfish, which are very different in size, range and abundance from channel catfish, the Department of Conservation has enacted a separate creel limit, effective March 1, 2006, for blue catfish (five per day) from that of channel catfish, which will remain at 10 per day. Ultimately, the new regulation should provide a better opportunity for more anglers to catch quality-sized blue catfish.

Blue catfish are common in both the Missouri and Mississippi rivers throughout the state of Missouri. Their numbers have declined in the Mississippi River upstream from the mouth of the Missouri River, but they are still taken in those waters by savvy anglers, especially in the tailwaters of the locks and dams.

Carl fishes for blues in areas that vary in depth from 6 to 20 feet or more, but always chooses areas with current, sometimes right out in the main channel of the river. Blue cats are often found near structures and/or cover, such as wing dikes, bluff holes, log jams and cut banks. Some wing dikes have notches that produce a downstream scour hole where blues can be found. Although it is most efficient to access blue cat habitat by boat, many of these locations are accessible from the bank.

With a little education, persistence and common sense, most anglers can gain access to quality-sized blue catfish in Missouri's big rivers.

In urban areas such as St. Louis, an abundance of additional structures such as moored barges and bridge piers are available. Chris Morrow, a veteran blue cat angler from Troy, Missouri, focuses on these structures when fishing.

In a recent article for *In-Fisherman's Catfish Insider*, Chris explained that his favorite targets are moored barges that have been in place for a week or more, usually for repair. Carl also fishes by moored barges where he suspects that all of the artificial lighting attracts insects and baitfish at night, which further attracts big blues.

Both Chris and Carl fish day and night, depending on their work schedules and the season. During the cooler times of year, they often fish during the day. In

FLATHEAD CATFISH ▲ limit: 5 fish daily

The flathead is a slender catfish with a broadly flattened head and a project-



ing lower jaw. The back and sides are pale yellow to light brown, and mottled with dark brown or black (mottling often is poorly developed in adults from muddy water). Adults commonly are 15 to 45 inches long and weigh 1 to 45 pounds.

CHANNEL CATFISH ▲ limit: 10 fish daily

The channel catfish is also slender, but with a projecting upper jaw.



It is similar to the blue catfish, but has scattered, roundish dark spots on its back and sides (spots often are absent in the smallest young and large adults). The anal fin margin is rounded, and the back and sides are olive-brown or slate blue. Breeding males are a deep blue-black on the back and sides, with the head swollen and knobby and the lips thickened and fleshy. Adults commonly are 12 to 32 inches long and weigh 1 to 15 pounds.

BLUE CATFISH ▲ limit: 5 fish daily

These are similar to channel catfish, with one significant difference—the anal fin margin



is straight and tapered. They never have dark spots on the back and sides. The back and upper sides are pale bluish-silver, grading to silver-white on the lower sides and belly. The light coloring often leads to confusion with the white catfish—a species neither native nor common to Missouri. Adult blue catfish commonly are 20 to 44 inches long and weigh 3 to 40 pounds on average.

*****The new catfish regulations became effective March 1, 2006, and apply on all Missouri waters except where special catfish management regulations apply. Anglers should note that some waters that support blue catfish populations will not be impacted by the new regulation. This includes the Missouri portion of the Mississippi River, which will continue with a daily and possession limit of 20 channels and blues in the aggregate and 10 flathead catfish. Anglers should always refer to the Wildlife Code and area signs and brochures to determine daily and possession limits.**

the summer, they are usually on the river in the early morning hours or at night to avoid the heat. Although many long-time blue cat anglers insist that nighttime offers the best fishing, Carl notes that many catfish tournaments are held during the day and they regularly produce huge blue cats.

Catching the cat

Appropriate gear is important when pursuing big river giants that can exceed 100 pounds. The typical rig for blues includes a 7- to 8-foot rod with a strong back and a sensitive tip. Carl feels that a rod with too stiff of a tip will spook big blues when they pick up the bait.

Many companies now design rods for big river cat-fishing. A heavy-duty bait-casting reel loaded with 30- to 50-pound monofilament line works well for blues. Chris uses braided fishing line, which is becoming more popular among catfish anglers. If you don't want to get too fancy, there are plenty of affordable, heavy-duty rod and reel combos that will do the trick on big river blues. The most important thing is that you feel confident in your equipment when you go into battle.

Tackle should include slip sinkers weighing from 3 to 8 ounces. Attach a piece of 12- to 24-inch line to a two-way swivel below the slip sinker and tie a 6/0 to 8/0 circle hook to the end. Most blue cat anglers swear by circle hooks because they eliminate the need for "setting the hook." When a blue cat grabs a circle hook, all the angler has to do is pick up the rod and start fighting. Rod holders are highly recommended in a boat or from the bank

Right: Bait hooks with generous portions of skipjack herring to tempt big blues. Below: A slip sinker, two-way swivel and circle hook setup.



BIG RIVER SAFETY

▲ Boaters should wear personal flotation devices when on the water. On the Missouri and Mississippi rivers, boaters should avoid commercial barges, which are not maneuverable. Barges also produce wakes that can capsize smaller boats. Throttle down when barges are in the vicinity and steer into a barge's wake rather than taking it on broadside.

▲ Wing dams, closing dams and riprap can quickly damage a boat. Be alert for the distinct ripples caused by shallow submerged rock structures. The rivers also contain a large amount of floating debris, especially during and immediately after high water periods.

▲ The U.S. Coast Guard marks the navigation channel with buoys. These can be difficult to see at night and present another boating hazard.

because a huge blue catfish can easily pull an expensive rig into the water before an angler has time to react.

Most big river "catters," as they are sometimes called, agree that the best baits for large blues are gizzard shad, goldeye, or best of all, skipjack herring. They typically use a throw net to catch gizzard shad in the mouth of a tributary or in shallow backwaters that are protected from the current.

Some anglers prefer catching goldeye or skipjack herring on small jigs similar to those used to catch crappie. Skipjack herring are more widely used on the Mississippi River due to their better availability. Missouri River anglers typically fish with gizzard shad, which can only be taken by net.

Shad and other baits are typically cut into pieces depending on the size of the bait. Carl feels that the bigger the bait the better. He likes to describe bait in monetary terms, comparing a large hunk of bait to a quarter and a small piece to a penny. Would you bend down to pick up a penny?" he asks, "A mungo blue might swim right by that penny, but it rarely ignores a quarter."

Most blue cat anglers consider the head of the shad or skipjack the best bait of all. According to a recent article in *Outdoor Life*, the Illinois state record blue cat, which was taken last year on the Mississippi River near St. Louis, was caught with the front half of a skipjack herring—including the head, of course.

Virtually all serious blue cat anglers are sensitive about bait and they shun the frozen sort. They prefer to catch their bait fresh, but if that isn't possible, they vacuum seal the bait before they freeze it so that it will appear fresh when thawed. Chris has been known to



Blue catfish are often found near structures such as dikes and bridges, or under the cover of log jams and barges.

go out of state, if necessary, to collect skipjack herring, vacuum seal it, and freeze it for the next fishing season.

Although many catfish anglers practice catch and release on trophy-sized blues, it is worth mentioning that the blue catfish makes fine table fare. Their meat is firm and delicious, and when deep fried in oil with a light coating of corn meal, it is as good as crappie and walleye as far as I'm concerned. As with all fish that you eat from Missouri's rivers, you should check for recommended consumption rates that are released by the Missouri Department of Health each year. Currently, catfish from the Missouri and Mississippi rivers are under a consumption advisory.

If you still don't feel prepared to venture onto Missouri's big rivers in pursuit of big blues, just remember that Carl Roberts was in the same boat, so to speak, five years ago. By taking these basic recommendations, reading a few fishing magazines, and most importantly, talking to successful catters, you just might end up

HEALTH ADVISORY

The Missouri Department of Health and Senior Services has reevaluated their fish consumption advisory on the Missouri and Mississippi rivers. While fish tissue contaminant concentrations have declined, PCBs and chlordane remain at levels of health concern for sturgeon and sturgeon eggs and several catfish species. DHSS reviewed recent sampling conducted on these rivers and recommends that all consumers limit catfish consumption to one meal per week of flathead, channel and blue catfish greater than 17 inches due to PCBs, chlordane, and mercury. Visit the News & Public Notices section of the DHSS Web site at www.dhss.mo.gov for information.

being interviewed by a film crew from *In-Fisherman* yourself some day.

In the meantime, don't hesitate to contact a fisheries biologist from the Department for help (see page 1 for regional office phone numbers). It's one of the most rewarding aspects of our job! ▲

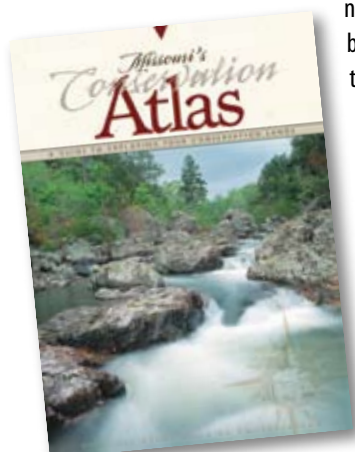


FREE FISHING WEEKEND JUNE 10-11

If you are looking for something to do outdoors with your family June 10 and 11, why not take them to one of the Show-Me State's hundreds of public fishing areas? You won't even have to buy fishing permits because those are Free Fishing Days in Missouri. With conservation areas, community lakes, stream accesses, state parks and federal reservoirs dotting Missouri's landscape, finding a fishing spot close to home is easy. Use the Conservation Atlas database at www.missouriconservation.org/areas, or call the nearest Conservation Department office. See page 1 for regional office phone numbers.

Updated Conservation Atlas

Missouri's Conservation Atlas, the detailed, large-format guide to more than 900 conservation areas, is in print again, and it is better than ever. The 240-page, spiral-bound book has been updated to include new conservation areas and now has new color county maps grouped by region. Each county map has a list of conservation areas found there with driving directions to each and summaries of facilities and recreational opportunities. A section in the back lists shooting ranges and areas with disabled-accessible facilities. The atlas fits neatly beneath car seats, so it is handy when you pass a sign for a conservation area and wonder what is there. The atlas is available for \$19 plus shipping and tax, where applicable. Buyers will get a 20 percent discount during July and August. It is on sale now at Conservation Department nature centers and regional offices. To order by mail, call toll-free 877/521-8632, or write to The Nature Shop, P.O. Box 180, Jefferson City, MO 65102. You can also order online at www.mdcnatureshop.com/.



Join national "carp-in" June 24

If you are the kind of angler who hates to miss unique fishing opportunities, you will want to "carp diem" at the Carp Anglers Group (CAG) Invitational Fish-In June 24 at Bull Shoals Lake. The event is one of hundreds taking place nationwide on the same date. You won't be able to see the thousands of other anglers simultaneously catching carp, but you will be competing with them for regional and national prizes. Scoring employs a handicapping system that factors in regional differences in fish size. Registration costs \$10 per angler for CAG members and guests. The registration fee is waived for members who bring guests. The carp fish-ins emphasize fun rather than competition. There is even a prize for the wackiest photograph of a carp catcher. Visit www.carpanglersgroup.com for more information.

Lewis & Clark journalists launch final leg of journey

Like the Lewis and Clark expedition's Voyage of Discovery, Missouri's Lewis and Clark Journaling Program now spans three years. This year participants can earn a new set of 10 enamel lapel pins by visiting every site on the prescribed list. And, as before, there will be a drawing for a grand prize of outdoor equipment for those who visit all the sites.

Participants follow in Lewis and Clark's footsteps by taking trips to conservation areas scattered around the state and writing entries in journals provided as part of the program. Sites for this year and the pin awarded for visiting each are:

- Burr Oak Woods Conservation Nature Center (CNC)—burr oak acorn
- Cape Girardeau Conservation Campus Nature Center—beaver
- Columbia Bottom Conservation Area (CA)—trumpeter swan
- Anita B. Gorman Conservation Discovery Center—sycamore leaf
- Lost Valley Hatchery—lake sturgeon
- Powder Valley CNC—northern pike
- Runge CNC—pale purple coneflower
- Shepherd of the Hills Conservation Center—softshell turtle
- Springfield CNC—striped skunk

Those who visit all nine of these sites will receive a keelboat pin.



Census Bureau calling Missourians about outdoor activities

If you get a telephone call from someone asking about your outdoor recreation activities, don't hang up right away. It could be the U.S. Census Bureau calling on legitimate business.

Census officials are conducting the National Survey of Fishing, Hunting and Wildlife-Associated Recreation for the U.S. Fish and Wildlife Service. Bureau officials conducted interviews in April and May and will do so again in September and October, and in January and February 2007.

The survey has been conducted about every five years since 1955. State and federal officials use information from the survey when planning fish and wildlife management programs.

Call the nearest Conservation Department office (see page 1 for regional office phone numbers) if you have questions about someone calling to ask about your outdoor activities. More information is available at www.federalaid.fws.gov/surveys/surveys.html.

WARM, DRY SPRING INCREASES FISH KILLS

An unusual number of fish kills across Missouri this spring were the



result of warm, dry weather that began in January. The Conservation Department normally receives about one report of dying fish per week in the spring. This year, however, the figure was more like five per week. Spring fish kills are a normal result of winter stress followed by the

rigors of spawning. Warm, low water statewide affected fish of all species in lakes and streams of all sizes. Southwest Missouri was particularly hard-hit. The kills occurred when parasites attacked fishes' skin or gills, and secondary infections set in. The Conservation Department needs timely reports of fish kills. If you see dead or dying fish, look for unusual conditions, such as odor or signs of petroleum products on the surface of the water. Then call the nearest Conservation Department office or 573/882-9880, ext. 3228.

Upper Mississippi CA blind drawing

Waterfowl hunters, mark your calendars for the 2006 Upper Mississippi Conservation Area blind drawing July 22 at Francis Howell High School at Hwy. 94 and Hwy. D in Weldon Spring. Registration will take place from 9 to 10:30 a.m., with the drawing at 11 a.m. Registrants must be 16 and older and bring a valid 2006 Missouri Small Game Hunting Permit, a 2006 Missouri Migratory Bird Permit, a 2006 Federal Migratory Bird Hunting and Conservation Stamp and a photo I.D. You should provide names, addresses, phone numbers, dates of birth and conservation numbers for other hunters in your party. For more information, call Columbia Bottom Conservation Area at 314/877-6014 or the St. Louis Regional Office at 636/441-4554, or go to www.missouriconservation.org.

Camping and hunting changes at Thomas Hill CA

Hunters and campers at Thomas Hill Conservation Area need to note changes in areas open to public use. Some areas have been closed, while new opportunities now are available in others. Watch for newly posted boundary signs around areas where changes have occurred.

All campsites at the north and south primitive campgrounds have been closed. The Hwy. T campground with 10 improved sites remains open, and overflow camping will be available there on weekends during the camping season.

Other areas now closed include some narrow strips of land with limited access, areas near housing developments and areas with unclear boundaries. This includes the Wisdom Point area. Also, 50 acres of strip-mined land on the lake's warm-water arm now are closed to public use.

Rules for building duck blinds have not changed. Hunters may build blinds along the shoreline, even in recently closed areas, such as Wisdom Point. Associated Electric Cooperative Inc. now regulates private boat docks on the lake and is contacting dock owners about new regulations. Additional camping facilities are available nearby at Long Branch State Park and at private campgrounds.

For more information, call 660/385-4920. For information about boat docks, call 660/261-4221, ext. 331.





MISSOURI RENEWS ITS COMMITMENT TO WATERFOWL NESTING HABITAT

The Conservation Department has renewed its commitment to ducks by pledging \$1.25 million over five years for nesting habitat conservation. The money will go to Ducks Unlimited (DU) in western Manitoba and eastern Saskatchewan. Conservation Department Director John Hoskins called the pledge "an excellent investment in the future of waterfowl."

The Conservation Department's contribution will be matched by DU, which in turn will use the combined amount to obtain a matching grant from the U.S. federal government under provisions of the North American Wetlands Conservation Act (NAWCA). The result will be waterfowl habitat increases and

improvements on thousands of acres in Canada. Missouri has received more than \$11.6 million in NAWCA grants for in-state wetland projects since the program began in 1990.

"Most ducks harvested here originate from the Canadian prairies," said Conservation Department Director John Hoskins. "It's not enough to provide migration and wintering habitat for ducks in Missouri. We also need to improve conditions for those same birds during critical breeding periods while they are in Canada." He said partnerships with federal agencies and citizen groups are the key to the success of North American waterfowl conservation.

Conservation Contractors

Forty-five men and women who completed the first Conservation Contractor Workshop in West Plains Feb. 28 are in the vanguard of private land conservation. Landowners are their customers, but wildlife is the ultimate beneficiary. The workshop was the first in a series of training sessions aimed at giving private wildlife management professionals the technical and business savvy

they need to establish successful businesses. Landowners who want to encourage wildlife but lack the time, equipment, knowledge or physical ability will be able to turn to these conservation entrepreneurs.

The courses are a cooperative effort of the Conservation Department, the Missouri Agriculture Industries Council Inc. (MO-AG) and the U.S. Fish and Wildlife Service. The first round of workshops gives participants a crash course in grassland and woodland management for wildlife.

They also receive a Conservation Contractor Manual with detailed information about dozens of aspects of managing open land, forests, wetlands and streams. The manual includes information about tapping state and federal wildlife management cost-share programs and MO-AG services to make wildlife management more affordable for their clients.

Workshop participants can be included on the Conservation Department's list of qualified contractors. Landowners can get the list at www.missouri-conservation.org/programs/contractor/. The list and information about future workshops also are available from Private Land Services Division, P.O. Box 180, Jefferson City, MO 65102-0180, 573/751-4115.





Second-largest youth turkey harvest

Young hunters recorded their second-largest turkey harvest in the six-year history of Missouri's Youth Spring Turkey Season. Youngsters killed 3,694 turkeys during the season April 8 and 9. That is 200 (5 percent) fewer than last year's youth harvest. They maintained their perfect safety record; the Conservation Department recorded no firearms-related turkey hunting incidents during the youth season.

Communities honored for tree care

Four communities received Missouri Arbor Awards of Excellence at the annual Missouri Community Forestry Council Conference in March. The City of Gladstone, the City of St. Peters, TreeLiberty of Liberty, and Polly Jaben of Plattsburg were selected from 25 applications received from across the state. Applications were evaluated based on sustainability, use of sound tree management principles, effectiveness, size of area affected and innovation. The City of Hannibal also received a Citation of Merit. For more information about the award program, e-mail Justine.Gartner@mdc.mo.gov or call 573/522-4115, ext. 3116.

CALLAWAY COUNTY CRAPPIE TOPS STATE RECORD

John R. Horstman of Mokane landed more than a meal when he reeled in a 5-pound black crappie April 21. He also landed himself in the Missouri fishing record book.

The previous record was a 4-pound, 8-ounce fish caught from a farm pond in Clay County by Ray Babcock in 1967.

For more information about Missouri's state-record fish program, visit www.missouriconservation.org/fish/ then click on "Fish and Fishing" and then "Fishing records —pole and line."



Prairie Day at Burr Oak Woods

Big bluestem and Indian grass are dressed in their spring finery, the prairies are dotted with colorful wildflowers, and Burr Oak Woods Conservation Nature Center is celebrating! Join us between 9 a.m. and 2 p.m. June 24 for a trip back in time as we share our fascination with prairie and history. Enjoy old-time tunes and listen to stories of bygone days. Visit displays of traditional crafts, such as quilting and basket making. There will be plenty to entertain the kids, including horse-drawn wagon rides, old-time prairie games, Indian dancing, a buffalo chip throwing contest and more. We will even have free lunch for visitors. This will be a great time for families of all sizes and ages. Best of all, the event is free! Burr Oak Woods is off Park Road north of I-70 in Blue Springs. For more information, call 816/228-3766.

Commissioners celebrate Arbor Day

Their April 7 meeting in Jefferson City allowed Conservation Commissioners Chip McGeehan and Cynthia Metcalfe to take an active role in celebrating Arbor Day. Along with Commissioners Lowell Mohler and Steve Bradford, they handed out tree seedlings to fourth-graders at South Elementary School and helped plant a tree there.



Outdoor Calendar

Hunting

| | open | close |
|----------------|----------|-----------------|
| Coyotes | 5/15/06 | 3/31/07 |
| Deer, Firearms | 11/11/06 | to be announced |
| Groundhog | 5/15/06 | 12/15/06 |
| Rabbits | 10/1/06 | 2/15/07 |
| Squirrels | 5/27/06 | 2/15/07 |

Fishing

Black Bass (certain Ozark streams, see the wildlife code)

5/27/06 2/28/07

impoundments and other streams year round

| | | |
|----------|---------|----------|
| Bullfrog | sunset | midnight |
| | 6/30/06 | 10/31/06 |

Experimental Catfish Hand-fishing Season

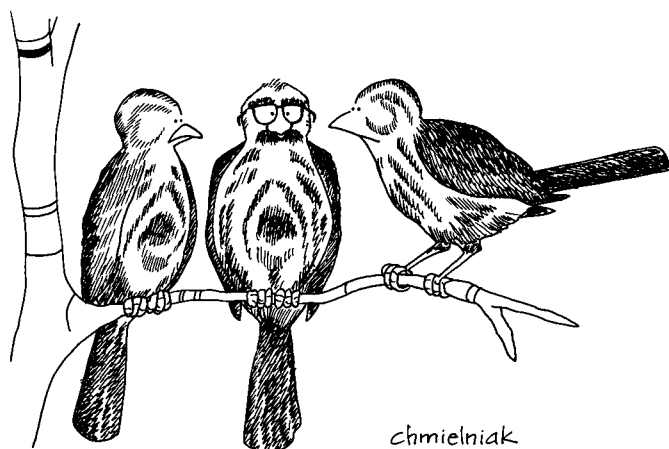
(on designated portions of Fabius, Mississippi and St. Francis rivers)

6/1/06 7/15/06

| | | |
|-------------|--------|----------|
| Trout Parks | 3/1/06 | 10/31/06 |
|-------------|--------|----------|

For complete information about seasons, limits, methods and restrictions, consult the *Wildlife Code* and the current summaries of "Missouri Hunting and Trapping Regulations" and "Missouri Fishing Regulations," the "Fall Deer and Turkey Hunting Regulations and Information," the "Waterfowl Hunting Digest" and the "Migratory Bird Hunting Digest." This information is on our Web site at www.MissouriConservation.org/regs/ and at permit vendors.

The Conservation Department's computerized point-of-sale system allows you to purchase or replace your permits through local vendors or by phone. The toll-free number is 800/392-4115. Allow 10 days for delivery of telephone purchases. To purchase permits online go to www.wildlife.license.com/mo/.



Not confident that their camouflage is effective, some birds try to fool predators by wearing disguises.



Magic pill holds promise for zebra mussel control

Scientists at Cambridge University say they have developed a new pill that could eliminate zebra mussel infestations without harming other creatures. The "biobullets" consist of potassium chloride, which most people know as a dietary substitute for table salt. Zebra mussels, exotic invaders that can cause ecological as well as economic havoc in North American waters, take in the potassium chloride microcapsules from surrounding water. As the capsules dissolve, they slowly kill the fingernail-sized mussels.

AGENT NOTEBOOK

From mid-May through mid-July

we receive lots of calls from kindhearted people who want to adopt "orphaned" animals. It is not unusual to hear of baby foxes, raccoons, squirrels, rabbits and birds being taken home. In most cases, the baby animal in question is not actually orphaned.

Many adult animals leave their young for extended periods of time during the day. Deer are a great example. For the first couple of weeks after birth, young deer are left by their mother during the day. She returns to feed the fawns after dark. Reducing contact with her young keeps predators from clueing in on the helpless fawns.

The best advice we can give most callers is to return wild animals immediately to the site where they found them. It may be difficult for people to leave a small animal and walk away from it, but that's usually what's best for the animal. The longer an animal is away from its parents or its natural habitat, the less likely its chances of survival.

It's a violation of state law to keep wild animals unless they were legally taken. The Conservation Department does not issue permits for people to keep "orphaned wildlife." Wildlife rehabilitation centers usually aren't an option, because they often are stretched to their financial limits rescuing less common species. They are reluctant to spend money raising raccoons, squirrels, deer and other common animal species.

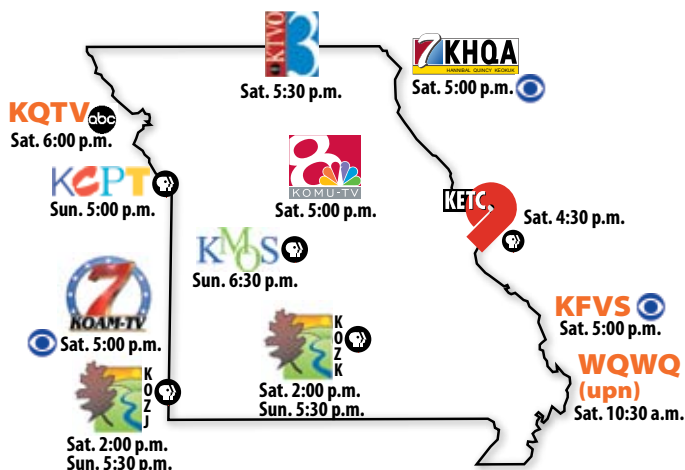
The next time you encounter a baby animal, stop and think about the options. Take photographs and enjoy the contact but leave the area and the baby undisturbed. Wild animals are best left in the wild. —Jeff Brown, Randolph County





Program Schedule

Television the way Nature intended!



For additional show information and video clips, be sure to check our Web site at <http://mdc4.mdc.mo.gov/tv/>.

SHOW SCHEDULE

June 3 & 4—FISH

Check out some unusual fish you might not be familiar with.

June 10 & 11—KIDS & EDUCATION

Discover the many joys of learning in an outdoor setting.

June 17 & 18—OUTDOOR PHOTOGRAPHY

Meet some folks who have a love for the outdoors and an eye for the camera.

June 24 & 25—QUAIL

Learn more about one of Missouri's most popular game birds, the bobwhite quail.

July 1 & 2—LEWIS AND CLARK

Take a journey on the Missouri River with Lewis & Clark.

OTHER OUTLETS (Previously aired episodes are also shown on the following)

Blue Springs CTV7
Brentwood BTV-10 Brentwood City Television
Columbia CAT3
Columbia Columbia Channel
Hillsboro JCTV
Independence City 7 Cable
Joplin KGCS-TV57
Kearney Unite Cable
Maryland Heights MHTV-10
Parkville GATV
Perryville PVTV

Platte City Unite Cable
Poplar Bluff Poplar Bluff City Cable
Ste. Genevieve Ste. Genevieve Cable
St. Charles SC20 City Cable
St. Louis Charter Cable
St. Louis Cooperating Schools Cable
St. Louis City TV 10
St. Peters St. Peters Cable
Springfield KBLE36/MediaCom
Sullivan Fidelity Cable
West Plains OCTV

Meet Our Contributors



Danny Brown is a fisheries management biologist with the Conservation Department in the St. Louis Region. He enjoys playing bluegrass guitar, riding his Harley, duck hunting on the Missouri River and reading. He lives on a farm in Union with his wife, Joyce, four chickens and a cat named Sammie.

Robert N. Chapman is a wildlife management biologist in the Ozark Region. His professional interests include researching the response of plant communities and wildlife populations to fire. Rob enjoys hunting, fishing, canoeing and spending time with family and friends.



Dave Hamilton is a resource scientist with the Conservation Department in Columbia. He studies a variety of wildlife, some of which have made tremendous comebacks, including river otters, bobcats and black bears. He enjoys hunting with his wife, Sue, and family at their cabin in northern Missouri.

Ann Koenig lives in Columbia with her husband and two young sons. She has worked as a Conservation Department forester for eight years. Granddaughter of a stove mill owner, great niece of a WWII-era MDC naturalist, and daughter-in-law to owners of a Century Farm, she has strong ties to conservation.



Rhonda L. Rimer has been the natural history biologist for the Ozark Region since 1999. Prior to settling in and falling in love with the Missouri Ozarks, she worked as an ecologist throughout the desert Southwest and in Arkansas. Rhonda loves backpacking, bicycling, and using dogs to hunt for quail and rabbit.



To learn about bobwhite quail management and Missouri's quail recovery efforts, check out www.missouriconservation.org
Keyword: quail



June Bloom

Columbine is one of the many striking wildflowers that bloom in June. For more information on this and other native plants, go to www.grownative.org.—Noppadol Paothong.



Subscribe online

mdc.mo.gov/conmag/subscribe

Free to
Missouri households